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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/615,878	07/10/2003	Wen-Hsiang Yueh	025697-00022	8455

7590 10/25/2006

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EXAMINER

HAILU, TADESSE

ART UNIT	PAPER NUMBER
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2173

DATE MAILED: 10/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/615,878	YUEH, WEN-HSIANG	
	<b>Examiner</b>	<b>Art Unit</b>	
	Tadesse Hailu	2173	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 10 July 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### DETAILED ACTION

1. This Office Action is in response to the above patent application number filed July 10, 2003.
2. The examiner acknowledges that the certified copy of foreign (Taiwan) priority application filed on July 19, 2003 has been considered and entered.
3. The pending claims 1 through 19 are examined herein as follows.

#### ***Specification***

4. The disclosure is objected to because of the following informalities: The Specification, on page 6, line 3, when describing Fig. 1, states "a wireless computer system 1". There is no "a wireless computer system 1", in Fig. 1. Appropriate correction is required. The Specification, on page 7, lines 10-11, when describing Fig. 2, states, "a display device 3 comprises a case 7". There is no "a case 7" in Fig. 2. Appropriate correction is required.

#### **Introduction**

The Present invention relates to a wireless display device and display method, particularly thereof capable of optionally receiving at least two sources of display signals, wherein the first source of display signal is provided by a host of a wireless computer system via wireless communication, and the second source of display signal is provided by a portable electronic device via cable communication, whereby the display device used indoors is upgraded as a portable outdoor displayer.

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Similarly, each of references cited herein are directed to render some portion of the claimed invention. For example, Tanaka (the main reference) is directed to a wireless display system for wireless connection of display and main body of a personal computer (PC) so that the display unit may be portable. Consequently, the combined art renders the limitation of the current invention.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1, 3-5, 8 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tanaka et al (6,944,480) in view of Jackson III (2004/0155861).

With regard to claim 1:

Tanaka discloses a wireless display device (106) comprising: a wireless communication circuit (110, Fig. 1) for receiving a first display signal from a host of a wireless computer system (101, Fig. 1); a LCD displayer (113, Fig. 1) for displaying the first or second display signals (e.g., display signals received from host computer 101, or any one of the hand held device connected to the wireless device, Figs. 5, and 8-11); and a switch (data converting means) for optionally switching either the first or second display signals to the LCD displayer and cutting off a power (power saving control means) provided to the wireless communication circuit when switching the

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second display signal to the LCD displayer (Abstract, col., 3, lines 45-57). Tanaka discloses several handheld devices connected , via a cable, to the wireless display (Figs. 5 and 7-11) for receiving a second display signal (via serial port 114). Tanaka, however, falls short to connect a portable personal digital processor to the wireless display. Jackson, on the other hand, discloses a PDA connected with a portable or wireless display monitor (e.g., Fig. 3). At the time of the invention, it would have been obvious to a person of ordinary skill in the art to replace any one of the hand-held devices (see Figs. 5, 7-11) connected to the wireless display of Tanaka with a PDA of Jackson. The suggestion /motivation for doing so would have been to receive screen image data from the PDA. Since a portable computer (PDA) incorporates several application but with a smaller screen size this connection or configuration will create a better image viewing environment for a user. Therefore, it would have been obvious to combine Jackson with Tanaka to obtain the invention as specified in claim 1.

With regard to claim 19:

The method claim 19 recites steps performed by the apparatus of claim 1 and therefore is rejected under the same rationale.

With regard to claims 3 and 4:

Tanaka in view of Jackson III discloses that the video input interface is an electrical connector between the wireless display device and the portable personal digital processor (e.g., the PDA and portable display are electrically connected through cable Fig. 3).

With regard to claim 5:

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Tanaka in view of Jackson III discloses that the portable personal digital processor is a PDA or a wireless mobile handset (e.g., Fig. 3).

With regard to claim 8:

Tanaka in view of Jackson III describes that power saving control means switch outputs a power control signal for cutting off a power provided by batteries to the wireless communication circuit (Abstract, col., 3, lines 45-57).

6. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tanaka in view of Jackson III as applied to claim 1 above, and further in view of Matthew et al (6,784,855).

With regard to claims 2:

While Tanaka in view of Jackson III discloses a wireless communication, but fails to explicitly describe RF communication having an RF receiver. Matthews, on the other hand, disclose such shortcomings (see Fig. 1, #110). Matthews discloses methods and systems for a portable interactive display device for use with a computer. Matthews discloses a wireless communication including a decoding and controlling unit, a memory, a RF receiver and an antenna (col., 3 lines 25-52). At the time of the invention, it would have been obvious to a person of ordinary skill in the art to use the wireless communication of Tanaka in view of Jackson as a radio (RF) communication between the portable device and the host computer because as illustrated in Matthews such wireless communication comprises an RF receiver. The suggestion /motivation for doing so would have been to use and apply wider range communication in the system of Tanaka..

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7. Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tanaka in view of Jackson III as applied to claim 1 above, and further in view of Konishi (2003/0234776).

With regard to claims 6 and 7:

While Tanaka in view of Jackson III discloses data converting means as a switch means to switch from first or second signal, but integrated circuit (IC) switch is not clearly shown. Konishi, on the other hand, discloses such shortcomings (Abstract, Fig. 2, #2). At the time of the invention, it would have been obvious to a person of ordinary skill in the art to incorporate the switching circuit (2) of Konishi with Tanaka in view of Jackson III because one will be able to switch from one signal source to another as needed bases and isolate interference produced by each other.

8. Claims 9, 10, 12-15, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tanaka in view of Jackson III as applied to claim 1 above, and further in view of Oba et al (6,574,488).

With regard to claim 9:

Oba discloses a display terminal (3) that is portable and detachable from a base. A user can remove the terminal from the base and carry it to his room (abstract). Thus, at the time of the invention, it would have been obvious to a person of ordinary skill in the art to incorporate the removable base of Oba with Tanaka in view of Jackson. The suggestion /motivation for doing so would have been to use a single apparatus to be shared by, for instance, a plurality of family members in a home while a certain level of privacy is secured (col., 1, lines 10-17).

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With regard to claim 10:

Tanaka in view of Jackson III and further in view of Oba discloses that the display device (Tanaka, 106) comprises a wireless communication circuit for receiving the first display signal provided by the host computer via wireless communication (see Figs. 5 and 7-11).

With regard to claim 12:

Tanaka in view of Jackson III and further in view of Oba discloses that the display device comprises a video input interface that receives said second display signal provided by a portable personal digital processor via cable communication (Jackson, Fig. 3).

With regard to claims 13 and 14:

Tanaka in view of Jackson III and further in view of Oba disclose that the video input interface is an electrical connector between the wireless display device and the portable personal digital processor (Jackson, the PDA and portable display are electrically connected through cable Fig. 3).

With regard to claim 15:

Tanaka in view of Jackson III and further in view of Oba disclose that the portable personal digital processor is a PDA or a wireless mobile handset (Jackson, Fig. 3).

With regard to claim 18:

Tanaka in view of Jackson III and further in view of Oba describes that power saving control means switch outputs a power control signal for cutting off a power



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provided by batteries to the wireless communication circuit (Tanaka, Abstract, col., 3, lines 45-57).

9. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tanaka in view of Jackson III as applied to claim 9 above, and further in view of Oba et al (6,574,488) and Matthews et al (6,784,855).

With regard to claim 11:

While Tanaka in view of Jackson III and further in view of Oba disclose a wireless communication, but fails to explicitly describe RF communication having an RF receiver. Matthews, on the other hand, disclose such shortcomings (see Fig. 1, #110). Matthews discloses methods and systems for a portable interactive display device for use with a computer. Matthews discloses a wireless communication including a decoding and controlling unit, a memory, a RF receiver and an antenna (col., 3 lines 25-52). At the time of the invention, it would have been obvious to a person of ordinary skill in the art to use the wireless communication of Tanaka in view of Jackson and further in view of Oba as a radio (RF) communication between the portable device and the host computer because as illustrated in Matthews such wireless communication comprises an RF receiver. The suggestion /motivation for doing so would have been to use and apply wider range communication in the system of Tanaka.

10. Claims 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tanaka in view of Jackson III and further in view of Oba as applied to claim 9 above, and further in view of Konishi (2003/0234776).

With regard to claims 16 and 17:

While Tanaka in view of Jackson III and further in view of Oba discloses data converting means as a switch means to switch from first or second signal, but integrated circuit (IC) switch is not clearly shown. Konishi, on the other hand, discloses such shortcomings (Abstract, Fig. 2, #2). At the time of the invention, it would have been obvious to a person of ordinary skill in the art to incorporate the switching circuit (2) of Konishi with Tanaka in view of Jackson III and further in view of Oba because one will be able to switch from one signal source to another as needed bases and by doing so isolates interference produced by each other.

#### CONCLUSION

11. Examiner has pointed out particular references contained in the prior arts of record in the body of this action for the convenience of the applicant. Although the specified citations are representative of the teachings in the art and are applied to the specific limitations within the individual claim, other passages and Figures may apply as well. It is respectfully requested from the applicant, in preparing the response, to consider fully the entire references as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior arts or disclosed by the examiner.

12. Information regarding the status of an application may be obtained from the patent application information retrieval (PAIR) system. Status information for published application may be obtained from either Private –PAIR or Public-PAIR. Status information for unpublished applications is available through Private-PAIR only. For more information about the PAIR system, please see [pair-direct.uspto.gov](http://pair-direct.uspto.gov) web site.

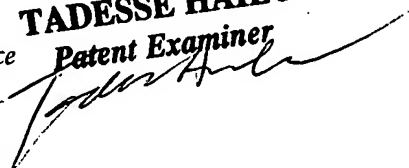
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Should you have questions regarding access to the PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

13. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Tadesse Hailu, whose telephone number is (571) 272-4051. The Examiner can normally be reached on M-F from 10:30 – 7:00 ET. If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Kincaid, Kristine, can be reached at (571) 272-4063 Art Unit 2173 and 2174.

*Examiner Tadesse Hailu*  
*Art Unit 2173 – Operator Interface*  
*10/25/06*

**TADESSE HAILU**  
**Patent Examiner**

A handwritten signature in black ink, appearing to read 'Tadesse Hailu', is written over the printed name and title.